Reframing Discourse: Using BRFSS Data to Deconstruct Influences of Parenthood on Depression and LGBTQ+ Mental Health

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ABSTRACT

Introduction: Rates of depression contribute to the mental health epidemic, with parents in the United States considered a population at greater risk. Framing of mental health and depression has remained centered on cisgender, heterosexual identities (cis-heteronormative) despite diversity in family constellations. This presentation looks to reframe and expand the discussion on LGBTQ+ parents, depression, and mental health. The hypotheses tested look first at the differences in depression diagnosis. Second, the number of poor mental health days per month are examined for differences between the subsamples.

Methods: The study reviewed data from the 2014-2016 BRFSS surveys (n=371,268) focused on parents as compared to non-parents. Analysis used Sexual Orientation and Gender Identity (SOGI) measures alongside self-reported mental health status and depression diagnosis. The results controlled for socioeconomic variations, case demographics, and SOGI data using a pair of regression models (one linear regression model and one binary logistic model). Interaction terms included in the models were constructed between SOGI data and parenthood status.

Results: Protective factors against depression were more evident within the models. All parents are approximately 12% more likely to receive a diagnosis of depression, despite reporting fewer poor mental health days. Expounding on findings related to the SOGI data, the gender and sexual orientation show significant variety. Outcomes support existing research as it pertains to cisgender women being twice as likely as cisgender men to receive a depression diagnosis - however, evidence supports that certain LGBTQ+ populations, when combined with parenthood, show significant reductions in depression diagnosis or self-reported poor mental health days.

Discussion: The interaction between parenthood and LGBTQ+ identities appear protective against depression for some when compared to the reference group (cisgender woman). As such, results encourage a discussion on the mental health benefits of stepping away from the cis-heteronormative framing and approaches toward parenthood narratives. Evidence as it pertains to mental health outcomes bolster existing ethnographic research with quantitative analysis. Taking an intersectional approach to analysis, details on the interaction between identity factors and structural influences can help improve both occurrences of bias and efforts towards preventative mental health program planning. Results encourage a discussion on the mental health benefits of stepping away from the cis-heteronormative framing and approaches toward how social norms perceive and define parenthood.

INTRODUCTION

- Mental illness affects 17% of adults in the USA with 16.1 million adults experiencing at least one major depressive episode[1]
- Depression is projected to be the second leading cause of global burden by 2020[2], with social determinants of health such as SES in high-income countries needing better inclusion in research[3]
- Preventative mental health efforts are paramount to Public Health practice, centering on SDG 3.4, by improving quality of life and reducing the economic burden[4]
- Cisgender heterosexual women are twice as likely to be diagnosed with depression compared to cisgender heterosexual men[5]
- Parents and LGBTQ+ populations both show higher rates of depression than the general population, which diversity of outcomes that have been counter to assumed additive effects[6-7]
- Assumptions of individuals as cisgender (gender aligns with sex) and heterosexual erases the gender spectrum and diversity in sexual orientation, limiting our understanding of social determinants of health[6,8-9]
- Gender-based disparities in depression studies and cisheterocenteric research framing of mental health and families leaves a gap in understanding depression in parents across gender and sexual orientation[8]
- An intersectional approach is necessary to understand the complex interactions present in self and society[9]

HYPOTHESES

Hypothesis 1

H0: There is no association between parenthood and depression diagnosis rates for persons ≤18 years old, living in the United States.

H1: There is a positive association between parenthood and depression diagnosis rates for persons ≤18 years old, living in the United States.

Hypothesis 2

H0: There is no association between parenthood and poor mental health days for persons ≤18 years old, living in the United States.

H1: There is a positive association between parenthood and poor mental health days for persons ≤18 years old, living in the United States.

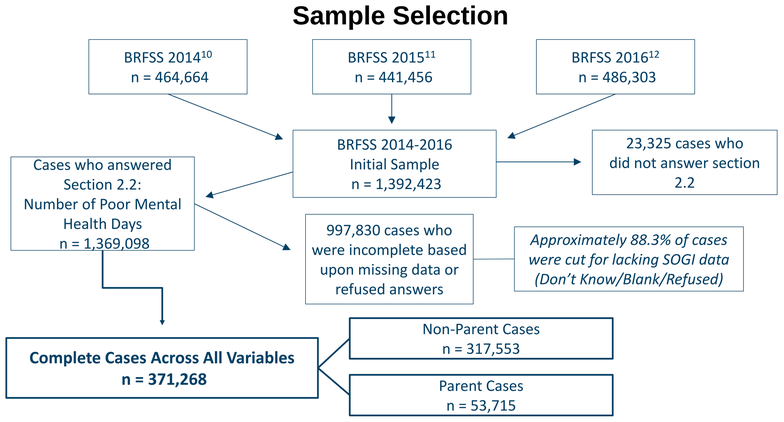
Hypothesis 3

H0: There is no association between parenthood and SOGI data as it pertains to depression and poor mental health day outcomes for persons ≤18 years old, living in the United States.

H1: There is a positive association between parenthood and SOGI data as it pertains to depression and poor mental health day outcomes for persons ≤18 years old, living in the United States.

METHODS

Sample Selection



Testing Methodology

Use of stepwise model was done to visually explain the importance of intersectional data analysis as it pertains to health disparities related to gender & sexual orientation.

RESULTS

A. Stepwise Models 1

	Logistic Model – Depression Diagnosis			Linear Model – Poor MH Days		
	Constant: -1.277**	Exp(β): .279**	C&S R^2: .019	Constant: 3.850**	Adjusted R^2: .009	
Variables	B	SE B	Exp(β)	B	SE B	β
Parent to Residential Child	-	-	-	-	-	-
Non-Parent/No Res. Child	.038**	.012**	1.039**	-.263**	.035**	-.012**
Cisgender Woman	-	-	-	-	-	-
Cisgender Man	-.632**	.009**	.532**	-1.081**	.025**	-.072**
Transgender, Male to Female	-.172	.090	.842	.055	.273	.000
Transgender, Female to Male	.184	.102	1.202	1.451**	.340**	.007**
Gender Nonconforming (GNC)	.256*	.125*	1.292*	2.335**	.430**	.009**
Straight	-	-	-	-	-	-
Lesbian or Gay	.824**	.029**	2.280**	1.552**	.098**	.026**
Bisexual	1.024**	.029**	2.785**	3.407**	.103**	.054**
Other Sex. Orientation	.355**	.067**	1.425**	1.809**	.215**	.014**

*Significant at the .05 level (2-tailed). **Significant at the .01 level (2-tailed).

B. Stepwise Models 2

	Logistic Model – Depression Diagnosis			Linear Model – Poor MH Days		
	Constant: -1.220**	Exp(β): .295**	C&S R^2: .019	Constant: 3.978**	Adjusted R^2: .009	
Variables	B	SE B	Exp(β)	B	SE B	β
Parent to Residential Child	-	-	-	-	-	-
Non-Parent/No Res. Child	-.029	.015	.972	-.415**	.046**	-.020**
Cisgender Woman	-	-	-	-	-	-
*Cisgender woman * parent*	-	-	-	-	-	-
Cisgender Man	-.602**	.010**	.548**	-1.025**	.027**	-.068**
*Cisgender man * parent*	-.221**	.027**	.801**	-.384**	.071**	-.012**
Transgender, Male to Female	-.154	.094	.858	.284	.287	.002
*Transgender woman * parent*	-.134	.319	.875	-2.296*	.948*	-.004*
Transgender, Female to Male	.274*	.108*	1.316*	1.644**	.364**	.008**
*Transgender man * parent*	-.773*	.354*	.462*	-1.364	1.006	-.002
Gender Nonconforming (GNC)	.311*	.130*	1.364*	2.342**	.451**	.009**
*GNC * parent*	-.534	.472	.586	.446	1.503	.001
Straight	-	-	-	-	-	-
*Straight * parent*	-	-	-	-	-	-
Lesbian or Gay	.827**	.029**	2.286**	1.606**	.100**	.027**
*Lesbian or Gay * parent*	-.220	.135	.803	-1.483**	.462**	-.005**
Bisexual	.975**	.032**	2.652**	3.177**	.113**	.051**
*Bisexual * parent*	.247**	.076**	1.281**	1.295**	.275**	.009**
Other Sex. Orientation	.402**	.070**	1.495**	1.767**	.227**	.013**
*Other Sexual Orient. * parent*	-.531*	.247*	.588*	.367	.699	.001

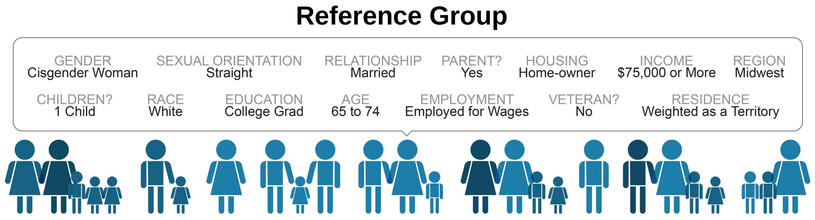
*Significant at the .05 level (2-tailed). **Significant at the .01 level (2-tailed).

C. Key Variables in Full Models

	Logistic Model – Depression Diagnosis			Linear Model – Poor MH Days		
	Constant: -2.013**	Exp(β): .134**	C&S R^2: .096	Constant: .539**	Adjusted R^2: .123	
Variables	B	SE B	Exp(β)	B	SE B	β
Parent to Residential Child	-	-	-	-	-	-
Non-Parent/No Res. Child	-.129**	.030**	.879**	.813**	.083**	.038**
Cisgender Woman	-	-	-	-	-	-
*Cisgender woman * parent*	-	-	-	-	-	-
Cisgender Man	-.660**	.012**	.517**	-.999**	.029**	-.066**
*Cisgender man * parent*	-.053	.028	.949	.112	.068	.004
Transgender, Male to Female	-.371**	.101**	.690**	-.453	.270	-.003
*Transgender woman * parent*	.125	.327	1.133	-1.565	.891	-.003
Transgender, Female to Male	.049	.118	1.051	.575	.343	.003
*Transgender man * parent*	-.877*	.386*	.416*	-1.107	.947	-.002
Gender Nonconforming (GNC)	.177	.140	1.193	1.472**	.424**	.006**
*GNC * parent*	-.311	.487	.733	1.080	1.414	.001
Straight	-	-	-	-	-	-
*Straight * parent*	-	-	-	-	-	-
Lesbian or Gay	.713**	.032**	2.040**	.942**	.096**	.016**
*Lesbian or Gay * parent*	-.152	.142	.859	-1.052*	.435*	-.004*
Bisexual	.843**	.034**	2.324**	2.064**	.107**	.033**
*Bisexual * parent*	.185*	.080*	1.203*	1.252**	.259**	.008**
Other Sex. Orientation	.241**	.076**	1.272	.574**	.214**	.004**
*Other Sexual Orient. * parent*	-.631*	.259*	.532*	.368	.658	.001

*Significant at the .05 level (2-tailed). **Significant at the .01 level (2-tailed).

Reference Group



The full model can be viewed at http://bit.ly/Luxion-Long-GW-RD_2018

CONCLUSIONS

Mirroring previous research findings, parents are 12.1% more likely to be diagnosed with depression despite having a lower mean for poor mental health days when compared to non-parents.**

Gender-based disparities in depression diagnosis are consistent with existing research while expanding the understanding of non-cisgender parents and non-parents:

White cisgender, straight men are 49.3% less likely to be diagnosed; their mean number of poor mental health days is only 1-day lower White cisgender, straight women.**

Transgender parents are also less likely than reference group to be diagnosed with depression for gender alone; transgender women are 31% less likely, while transgender men are 58.4%* less likely. There is no significant difference in mean for number of poor mental health days. However, the interaction term appears to negates some of the difference prompting the need for more research.**

Gender non-conforming persons only significant difference is an increase in the mean number of poor mental health days compare to the reference.

Sexual Orientation has significant differences across nearly all variables and interaction terms, departing from established research:

Protective effects of gender roles in gay/lesbian relationships# extends beyond postpartum, but the effect does not negate cisgender gay/lesbian parents being twice as likely to be diagnosed with depression.

Those with "other sexual orientation" have a reduction in likely depression diagnosis by 46.8%* for their sexual orientation.

Bisexual parents do not exhibit the same protections as gay/lesbian parents, instead facing higher means in poor mental health days and significant increases in depression diagnosis when compared to the reference; a likelihood that is even higher than gay/lesbian parents.

Significant results for controlling socioeconomic variables confirm:
Structural interventions that remove wage gaps[13], systemic racism, and center education as preventative public health are supported by the full model. Policy efforts should be centered on wage improvements and the removal of gender and sexual orientation discrimination that is still legal in at least 17 states in the United States[14]. Sexual Orientation and Gender Identity (SOGI) measures need continued and wide-scale use to have more credible results in research data.

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